

# ABSTRACT OF THE DISCLOSURE

A method for manufacturing a GaN compound semiconductor which can improve light emitting efficiency even when dislocations are present. An n type AlGa<sub>N</sub> layer, a undoped AlGa<sub>N</sub> layer, and a p type AlGa<sub>N</sub> layer are laminated on a substrate to obtain a double hetero structure. When the undoped AlGa<sub>N</sub> layer is formed, droplets of Ga or Al are formed on the n type AlGa<sub>N</sub> layer. The compositional ratio of Ga and Al in the undoped AlGa<sub>N</sub> layer varies due to the presence of the droplets, creating a spatial fluctuation in the band gap. Because of the spatial fluctuation in the band gap, the percentage of luminous recombinations of electrons and holes is increased.